THE MINERAL INDUSTRY OF

SLOVENIA

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In 1997, Slovenia remained a modest producer of mineral commodities that included aluminum, ferroalloys, steel, and fossil fuels that included coal, natural gas, and petroleum. Within the framework of the minerals industry of the former Yugoslavia, Slovenia had been an important producer of lead, mercury, uranium, and zinc. The mine production of these commodities, however, had either ceased or was in the process of closure. Among the republics of the former Yugoslavia, Slovenia had the most modern fabricating industry and a per capita income equal to about twice the average for the republics. Given that industry and infrastructure were not severely affected by the conflict in the former Yugoslavia, Slovenia was able to adapt more easily to Western European economic practices than most of the other Republics.

Following disassociation with Yugoslavia in 1991, the Government of Slovenia developed policies aimed at limiting economic dislocations in terms of employment, industrial production, and foreign commerce. These policies also were designed to limit the rate of inflation and to bring the country's economy in line with Western European market practices. Enterprises in the minerals sector no longer must produce at all costs, as many of them had been required to do under central economic planning.

In 1997, Slovenia's gross domestic product (GDP) rose by about 3.8% compared with that of 1995 (Slovenian Economic Mirror, 1998). Industrial production during this period increased by 1.1%, with the value of output of the mining and extracting sector rising slightly (0.4%) compared with that of 1995.

Major concerns about Slovenia's environment resulted in the inclusion of provisions for environmental protection in the country's new constitution. The Environmental Protection Law presented the Government's general policies for protecting the environment and specified regulations for the commercial use of natural resources, the establishment of an inspection directorate, and of provisions for monitoring, environmental impact assessments, and research (Ilesic, 1994). The Ministry of Environmental Protection and Physical Planning was established to undertake this work. Major sources of pollution included the use of lignite and brown coal, nonferrous metals processing, and the petrochemical sector.

Aluminum and steel were the major mineral commodities produced in Slovenia. Alumina and aluminum were produced at the refinery and smelter operated by Talum d.o.o. (formerly, Unial, Tvornica Glinice I Aluminija Boris Kidric in Kidricevo). In 1996, following a cooperative agreement with Hydro Aluminium A.S. of Norway, a new aluminum extrusion plant facility was added to Talum d.o.o.'s casthouse. The new extrusion facility would consume about 35,000 metric tons per year (t/yr) of aluminum ingot, or more than one-half of the total aluminium production of Slovenia. Lacking domestic sources of bauxite, Slovenia had to depend entirely on imports of bauxite for its alumina refining and aluminum smelting operations.

Slovenia's steel industry comprised three steel mills operated by Zdruzeno Podjetje Slovenske Zeljezare at Jesenice, Ravna na Kuroskem, and Store. In recent years all production of crude steel was from electric furnaces. Beginning in 1995, Slovenia's production of crude steel has rebounded with production exceeding 400,000 t/yr. During Slovenia's adjustment to new commercial circumstances, output in 1991-92 fell below 300,000 t/yr. Ferroalloys were produced at the Tovarna Dusika Ruse plant. Most of the ferrochromium produced there was sold directly to the country's stainless steel producer at Jesenice. Owing to high electric power costs and the unfavorable import prices for chromite in 1997, the management of Tovarna Dusika Ruse reported plans to suspend the production of high-carbon ferrochromium from yearend 1996 until March 1997 (Metal Bulletin, 1996). The company planned to produce lesser quantities of low-carbon ferrochromium during this same period. All the plant's output of ferrosilicon is consumed by the domestic steel industry.

Slovenia produced small quantities of clays, gypsum, ornamental stone, and other industrial minerals mostly for domestic use. Glass sand was a important industrial mineral that was consumed by the glass industry with an annual output of more than 25,000 t/yr.

The country was the only republic in former Yugoslavia to have produced all forms of commercial energy—coal, lignite, natural gas, petroleum, and uranium, which had been discontinued in 1991. Slovenia generated electricity with nuclear and hydroelectric power stations. The nuclear powerplant at Krsko, with an installed electric-power-generating capacity of 632 megawatts, which has been jointly owned with Croatia, was expected to continue operation until 2010. Slovenia's infrastructure included 305 kilometers (km) of natural gas pipelines and 290 km of petroleum pipelines.

References Cited

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TABLE 1
SLOVENIA: APPARENT PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Metric tons unless otherwise specified)

Commodity		1993	1994	1995	1996	1997e/
METALS						
Aluminum:						
Alumina		2,000	3,000	14,000 r/	15,000 r/	15,000
Metal, ingot, primary and secondary		82,682	76,741	57,692 r/	60,000 r/	60,000
Iron and steel, metal:						
Ferroalloys:						
Ferrochromium		8,812 r/	13,412 r/	23,247 r/	22,819 r/	9,232 3/
Ferrosilicocalcium		200	200	200	200	200
Ferrosilicon		12,000	12,000	12,000	10,000	10,000
Crude steel from electric furnaces		355,000	424,000	450,000	407,000 r/	400,000
Semimanufactures		126,596	189,071	175,000	175,000	175,000
Lead:						
Mine output:						
Ore, gross weight (Pb-Zn ore)		62,000	25,000	-- r/	-- r/	--
Pb content of ores e/		820 r/	350 r/	-- r/	-- r/	--
Metal:						
Smelter, primary and secondary e/		7,000	8,000	8,000	8,000	8,000
Refined, primary and secondary		6,424	7,425	7,237 r/	7,000	7,000
Pb semimanufactures, rolled		202	252	271	300	300
Mercury	kilograms	--	6,000	5,000 r/	5,000 r/	5,000
Silver	do.	--	--	--	--	--
Zinc:						
Zinc content of PbZn ore		600 r/	300 r/	--	--	--
Concentrate output, gross weight		--	--	--	--	--
Zn , metal e/		2,500	2,500	2,500	2,000	--
Zn semimanufactures, rolled		9,386	10,773	11,851	12,000	12,000
INDUSTRIAL MINERALS						
Cement	thousand tons	707	898	991 r/	900	900
Clays:						
Ceramic clay, crude		2,500	2,500	2,500	2,500	2,500
Fire clay, crude		857	589	-- r/	600	--
Kaolin:						
Crude		10,000	10,000	10,000	10,000	10,000
Washed e/		4,000	4,000	4,000	4,000	4,000
Gypsum, crude e/		10,000	10,000	10,000	10,000	10,000
Lime	thousand tons	135	160	149 r/	150	150
Pumice and related materials, volcanic tuff e/		40,000	40,000	40,000	40,000	40,000
Quartz, quartzite, glass sand:						
Quartz and quartzite		10,000	10,000	10,000	10,000	10,000
Glass sand		200,000	200,000	200,000	200,000	200,000
Total		210,000	210,000	210,000	210,000	210,000
Salt, all sources		12,300	11,230	2,738 r/	5,000 r/	5,000
Sand and gravel, excluding glass sand	thousand cubic meters	2,000	2,000	2,000	2,000	2,000
Stone, excluding quartz and quartzite, dimension, crude: e/						
Ornamental	cubic meters	324,000	254,000	237,000 r/	300,000	300,000
Other	do.	3,000	3,000	3,000	3,000	3,000
Crushed and brown, n.e.s.	thousand cubic meters	1,000	1,000	1,000	1,000	1,000
MINERAL FUELS AND RELATED MATERIALS						
Coal:						
Brown coal	thousand tons	1,200	1,079	967 r/	1,100 e/	1,000
Lignite	do.	3,921	3,775	3,917 r/	4,000 e/	4,000
Natural gas, gross producing	thousand cubic meters	13,392	12,595	18,220 r/	13,000 r/ e/	15,000
Petroleum:						
Crude:						
As reported	thousand tons	1,925	1,716	1,858 r/	1,900	1,900
Converted	thousand 42-gallon barrels	14,000	13,000	14,000	14,000	14,000
Refinery products e/	do.	3,500	3,500	3,500	3,500	3,500

e/ Estimated. r/ Revised.

1/ Table includes data available through May 1998.

2/ In addition to commodities listed, common clay also was produced, but available information is inadequate to make reliable estimates of output levels.

3/ Reported figure.

TABLE 2
SLOVENIA: STRUCTURE OF THE MINERAL INDUSTRY IN 1997

(Thousand metric tons unless otherwise specified)

Commodity	Major operating companies	Location of main facilities	Annual capacity
Alumina	Talum d.o.o.	Plant at Kidricevo	120
Aluminum	do.	Smelter at Kidricevo	72
Coal:			
Brown	SOZC, Rudarsko Energetski Kombinat E. Kardelj, Trobovlje, Slovenia	Mines: Sasavski Rudnici at Trbovlje, Hrastnik, Ojstro, Senovo, and Kanizarnica	1,300
Lignite	Rudarsko Energetski Kombinat Velenje, RO Rudnik Lignita-Velenje	Mine at Velenje	5,000
Cement	Salonit Anhovo	Plant at Anhovo	1,120
Lead metal	Rudnik Svinca in Topilnica, Mezica	Smelter at Mezica	35
Do.	do.	Refinery at Mezica	30
Mercury	Rudnik Zivega Srebra, Idrija	Mine and smelter in Idrija	15,000 1/
Petroleum, refined	Industrija Nafte (INA) Rafinerija Nafte Lendava	Refinery at Lendava	16 2/
Pig iron	Zdruzeno Podjetje Slovenske Zelezarne	Two blast furaces at Zelazara Jesenice	300
Do.	Zelezara Store	Electric reduction furnaces at Store pri Celju	290
Steel, crude	Zdruzeno Podjetje Slovenske Zelezarne	Plant at Jesenica	500
Do.	do.	Plant at Ravne	162
Do.	do.	Plant at Store	140

1/ Flasks per year.
2/ Thousand barrels per day.